

**REMARKS**

Applicants respectfully request reconsideration of the present application in view of the following remarks. Prior to entry of this response, claims 28-54 were pending in the application, of which claims 28 and 46 are independent. In the Office Action mailed March 12, 2007, the Examiner rejected claims 28-54 under 35 U.S.C. § 103(a). Following this response, claims 28-49 and 51-54 remain pending in this application and new claims 55-58 are presented, of which claim 58 is independent. Applicants hereby address the Examiner's rejections in turn.

I. **Amendments to the Claims**

Claim 46 has been amended to recite, among other things, "coupling said base and said cover with an electrical contact element that penetrates said ferromagnetic material." Support for this amendment is found in the specification at least at claim 28; page 4, lines 6-30; page 5, lines 25-29; and at page 6, lines 27-29. Accordingly, Applicants respectfully assert that no new matter is presented. Claim 49 has also been amended to remove a recitation similar to subject matter now incorporated into claim 46.

II. **New Claims**

New claims 55-58 are presented in this Amendment. Support for claim 55 is included in the specification at least at page 10, line 27-page 11, line 2. Support for claims 56-57 is found in the specification at least at page 5, lines 6-9 and lines 23-30; and at page 13, lines 21-31. Support for claim 58 is found in at least claims 46 and 50 as originally presented. Accordingly, Applicants respectfully submit that no new matter is introduced by any of claims 55-58.

III. Rejection of the Claims Under 35 U.S.C. § 103(a)

The Examiner rejected claims 28-54 under 35 U.S.C. § 103(a) as being obvious over DE Patent Publication No. 27 10 620 A1 ("Siewerth") in view of DE Patent Publication No. DE 3447836 A1 ("Fasterding"). In order to establish a *prima facie* case of obviousness, the cited reference must teach or suggest each of the claimed limitations. Claim 28 recites, among other things, "electrical contact elements electrically connecting said base and said cover, wherein said electrical contact elements are selected from the group of metal fusion joints and resilient members suitable to penetrate said ferromagnetic metals." In the March 12<sup>th</sup> Office Action, the Examiner acknowledged that Siewerth does not disclose this recitation (OA at 6), but asserted that this deficiency is overcome by Fasterding, which according to the Examiner discloses a "base (1) and a cover (5)...joined by contact elements (6) made of ferromagnetic material (i.e. steel, abstract), which are capable of penetrating said ferromagnetic material."<sup>1</sup>

Applicants respectfully disagree with the Examiner's contention that Fasterding discloses that elements 6 are capable of penetrating ferromagnetic material. Fasterding

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<sup>1</sup> Applicants note that while the Examiner acknowledged at page 6 of the March 12<sup>th</sup> Office Action that Siewerth does not disclose the electrical contact elements being selected from the group of metal fusion joints and resilient members suitable to penetrate ferromagnetic material, at pages 3 and 5 of the March 12<sup>th</sup> Office Action the Examiner seems to assert that Siewerth's page 6 discloses joining a base and cover with a metal fusion joint. As pointed out in Applicants' January 3, 2007 Response, nowhere does Siewerth disclose electrically connecting a base and a cover by metal fusion. To the contrary, Siewerth discloses at page 7 that "[t]here is no need to provide a fixed connection between the top covers 4 and the cage 1, such as welding." To the extent the Examiner maintains his previous position that Siewerth discloses electrically connecting its base and cover with a metal fusion joint, Applicants respectfully traverse and request that the Examiner more specifically identify the section of Siewerth he believes to disclose this recitation.

discloses a trough 1 and a cover 5 that are held together by friction pins 6. See Fasterding at page 10.<sup>2</sup> Fasterding discloses that the friction pins 6 are inserted through holes in the cover 5 and holes in flanges of the trough and hold the cover and trough together through a friction fit between the pins 6 and the holes. *Id* at 10-11. Fasterding does not disclose that the friction pins 6 are resilient, as recited in claim 28. Furthermore, Fasterding does not disclose that friction pins 6 are suitable to penetrate ferromagnetic material. In particular, given that the pins are inserted through holes in the trough and cover, there is no indication that they are, or need to be, suitable to penetrate ferromagnetic material.

Moreover, Applicants' specification distinguishes the inventive structure from prior art such as Fasterding. In particular, the specification explains that electrical contact elements that penetrate the ferromagnetic material of the base and cover "advantageously carry out a localized cleaning action on the coupling surface during the application of the joining member by removing any oxide, dirt, sand, or loose material present on that points of the surface." Spec. at 4, Ins. 26-30. Bolts or pins similar to those disclosed in Fasterding lack this capability of the invention encompassed by claim 28, as explained in the specification. Spec. at 13, Ins. 12-17.

Accordingly, because the cited combination does not teach or suggest each recitation of claim 28, no *prima facie* case of obviousness has been established, and Applicants respectfully request that the rejection of claim 28, as well as dependent claims 29-45, be withdrawn.

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<sup>2</sup> Concurrently with this response, Applicants submitted an Information Disclosure Statement enclosing an English translation of Fasterding. Applicants' citations to Fasterding refer to the translation.

The Examiner also rejected independent claim 46 as being obvious over the cited combination. Amended claim 46 recites, among other things, "coupling said base and said cover with an electrical contact element that penetrates said ferromagnetic material." Neither Siewerth nor Fasterding discloses coupling a base and a cover with an electrical contact element that penetrates ferromagnetic material. Siewerth teaches that a fixed connection between the base and cover is not necessary. Fasterding, meanwhile, teaches providing a base and cover having holes through which friction pins are inserted. Fasterding does not disclose its friction pins penetrating the metal forming the base and the cover. Accordingly, the cited combination does not disclose this recitation of amended claim 46.

Furthermore, the Examiner acknowledged that the cited combination does not disclose claim 46's recitation of "providing an electrical connection between said base and said cover having a conductance, per meter length, of at least 150 Siemens/m," but contended that it would have been obvious to modify the cited combination to include this recitation because "it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art." OA at 6-7. However, before the determination of the optimum or workable ranges of a variable may be characterized as routine experimentation, that parameter must first be recognized as a result-effective variable (i.e. a variable which achieves a recognized result). MPEP 2144.05; *In re Boesch*, 617 F.2d 272 (CCPA 1980). The Examiner has provided no evidence that the magnitude of an electrical connection between a base and a cover is a result-effective variable. For at least these

reasons, a *prima facie* case of obviousness has not been established with respect to claim 46, nor dependent claims 47-54.

The Examiner also acknowledged that Siewerth does not teach the recitations of claim 30 (which depends from claim 28) or claim 52 (which depends from claim 46). The Examiner asserted, however, that Fasterding discloses the recitations of each of these claims. OA at 6. Claim 30, which depends from claim 28, recites "wherein said resilient members are clips provided with portions able to penetrate said ferromagnetic material." Claim 52 recites "wherein electrically coupling said lateral portions comprises applying to said lateral portions a plurality of metal resilient clips able to pierce the surface of said lateral portions under their elastic action." However, Fasterding does not disclose resilient members with clips able to penetrate ferromagnetic material or pierce the surface of the trough or cover under elastic action, but instead discloses friction pins that are inserted through holes in a trough and cover. Accordingly, a *prima facie* case of obviousness has not been established with respect to claims 30 and 52.

With respect to claim 49, the Examiner asserted that Siewerth discloses a base and a cover having "superimposed portions on both sides of said conduit (Fig 1), and wherein said electrical contact elements (5) are applied to said superimposed portions (Page 6)." OA at 5. However, claim 49, which depends from claim 46, recites "wherein providing an electrical connection between said base and said cover comprises elastically coupling said base and said cover with material interpenetration." The Examiner has not alleged that Siewerth discloses elastically coupling a base and a cover with material interpenetration. Accordingly, a *prima facie* case of obviousness has not been established with respect to claim 49.

Claim 50, which depends from claim 46, recites “wherein providing an electrical connection between said base and said cover comprises realizing a metal fusion between said base and said cover.” The Examiner asserted that Siewerth discloses a base portion and a cover joined through metal fusion, generally referencing Siewerth’s page 6. OA at 5. Applicants respectfully disagree. While Siewerth discloses that the individual bars 5 of the netting 3 of cage 1 are joined to one another (Siewerth at 6), it does not disclose a metal fusion between the top cover and the cage. To the contrary, Siewerth makes clear that the top cover 4 is not fused to the cage 1: “[t]here is no need to provide a fixed connection between the top covers 4 and the cage 1, such as welding.” *Id.* at 7 (emphasis added). Moreover, Siewerth discloses that “all individual bars 5 of the pieces of netting 3 are totally encased in a protective coating 8, as illustrated in Fig. 2,” indicating that there is not a metal fusion between the top cover 4 and the cage 1. Accordingly, a *prima facie* case of obviousness has not been established with respect to claim 50.

The Examiner also acknowledged that the cited combination does not teach or suggest the recitations of claims 31, 32, and 38, but contended that it would have been obvious to one of ordinary skill in the art to modify the cited combination to include these features because discovering the optimum or workable ranges is routine. As discussed above with regard to claim 46, this is only true where the variable in question is recognized in the art as a result-effective variable. Here, with respect to claims 31 and 32, the Examiner has not shown that the width of an air gap between superimposed portions of a base and a cover is a result-effective variable. With respect to claim 38, the Examiner has not provided any evidence that the ratio of the length of partially

superimposed longitudinal sections of a conduit to the width of the conduit is a result-effective variable. Accordingly, in addition to the reasons discussed above with regard to claim 28, from which claims 31-32 and 38 depend, this provides additional reason why a *prima facie* case of obviousness has not been established with respect to these claims.

Furthermore, Siewerth and Fasterding cannot properly be combined because Siewerth teaches away from the modifications suggested by the Examiner. In considering a prior art reference, the Examiner is required to consider the reference as a whole, including portions that teach away from the suggested combination. MPEP 2141.02. The Examiner asserted that it would be obvious to modify Siewerth with the disclosure of Fasterding because Fasterding teaches providing a conduit of lower weight that is easily installed and prevents damages to interior components. However, Siewerth teaches away from modifying its disclosure with Fasterding's teachings as suggested by the Examiner. Siewerth teaches that

[t]here is no need to provide a fixed connection between the top covers 4 and the cage 1, such as welding. Similarly, the top covers 4 do not need to be in close contact with the cage 1 in order for the protection system to operate at its optimum effect."

Siewerth at 7; see also Fig. 3. Fasterding, in contrast, teaches providing a fixed connection between a trough and a cover using friction pins. Because Siewerth expressly teaches that it is not necessary to have a fixed connection between the lid and the base of the conduit, there is no motivation to modify Siewerth in the manner suggested by the Examiner. For this additional reason, no *prima facie* case of obviousness has been established with regard to claims 28-45 and 52.

Applicants also respectfully assert that new claims 55-58 are also in condition for allowance. Claims 55 and 56 depend from claim 46, and are therefore in condition for allowance based on the reasons discussed above with respect to claim 46.

Furthermore, claim 56 recites “said electrical contact element interpenetrates said first ferromagnetic material of said base and said second ferromagnetic material of said cover without forming through-holes in said base or said cover.” Neither Siewerth nor Fasterding teaches or suggests this limitation. In particular, Fasterding discloses only bolts that are fully inserted through holes in the base and cover. Claim 57 depends from claim 28 and is allowable for the reasons discussed above with regard to claim 28. Furthermore, claim 57 is also in condition for allowance based on the reason discussed in regard to claim 56.

Independent claim 58 recites, among other things, “providing an electrical connection between said base and said cover having a conductance, per meter of length, of at least 150 Siemens/m by realizing a metal fusion between said base and said cover.” The Examiner has pointed to no reference teaching or suggesting joining a base and a cover by realizing a metal fusion. As discussed above in footnote 1, Siewerth does not disclose providing an electrical connection between a base and a cover by realizing a metal fusion between them. While Siewerth discloses that the individual bars of netting 3, which forms cage 1, may be joined at their intersection points, Siewerth does not disclose joining the cage 1 and the cover 4. To the contrary, Siewerth discloses that “[t]here is no need to provide a fixed connection between the top covers 4 and the cage 1, such as welding.” Siewerth at 7. Accordingly, Applicants respectfully submit that claim 58 is in condition for allowance.

IV. Conclusion

In view of the foregoing remarks and amendments, Applicants respectfully request the reconsideration of this application and the timely allowance of the pending claims. The claims may include other elements not addressed herein that are not shown, taught, or suggested by the cited art. Accordingly, the preceding argument in favor of patentability is advanced without prejudice to other bases of patentability.

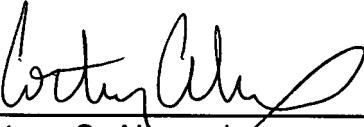
If there are any fees due in connection with the filing of this amendment, please charge the fees to our Deposit Account No. 06-0916. If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such an extension is requested and the fee should be charged to our deposit account.

Respectfully submitted,

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